

REMARKS

Claims 1-12 now stand in the application, new claim 12 having been added to recite subject matter previously recited in claim 10, and the remaining claims having been amended to more clearly define the invention. Reconsideration of the application and allowance of all claims are respectfully requested in view of the above amendments and the following remarks.

In the only stated rejection, all of claims 1-11 are rejected under 35 USC 102 (b) as anticipated by Giggenbach (USP 6,104,478). This rejection is respectfully traversed, and is further believed overcome by the amendments now made to the claims.

The amendatory subject matter of claims 1 and 9 is supported by the original description from page 3 line 24 to page 4 line 3, at lines 12-25 of page 5 and lines 5-9 of page 6.

The problem to be solved by the present invention is providing a transmitter and method capable of varying the level of radiated power in a transmitting telescope in laser on air telecommunications systems according to the actual requirements.

The transmitter for a free space optical communication system according to the present invention is provided with means for changing the distance between a source of light and a convergent lens. The distance change results in a change of the angle of divergence of the beam of light. The means in question are configured as to maintain a wide angle of divergence in good visibility conditions of the optical link and to reduce the angle of divergence proportionally to worsening of environmental conditions along the optical link.

The power transmitted by the laser is lowered when it is not required, that is in optimum atmospheric conditions, namely when there is no strong attenuation. There is therefore an

automatic control of the power being transmitted, similar to a typical ATPC used in traditional radio systems.

The present inventor has realized that it would be advantageous to transmit a beam with a wide angle, sufficient to guarantee the quality of the link and to make the stability of sighting less critical when the conditions of visibility are good. On the other hand, the beam transmitted is linearly reduced (namely reduced according to the worsening of environmental conditions) when the visibility becomes lower, typically due to mist, fog, rain or the like. The inventor has also realized that changes of visibility take place rather gradually, and therefore there is no need to provide means for rapidly changing the width of the beam.

Giggenbach does not disclose or suggest a transmitter for a free space optical communication system having means for changing the distance between the source of light and the convergent lens in order to change the angle of divergence of the beam of light, wherein said means operate as to maintain a wide angle of divergence in good visibility conditions of the link and to reduce the angle of divergence proportionally to worsening of environmental conditions along the link. This is clearly recited in independent claims 1 and 9, and these claims as well as all dependent claims are therefore believed to patentably distinguish over the prior art.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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